*QUALITY CONTROL REPORTS FOR*

WET MIX MACADAM (WMM)

# CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

**NABL** - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ BSCIC ISO 9001 REGISTERED


Job No.: CTCE/BBMP/W.No.07/KRIDL/WMM/Gradation/2014-15

04.07.2014

## GRADATION FOR WMM
## MORTH TABLE-400-11

**Client** : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

**Agency** : **Technical Manager,** KRIDL, Bangalore.

**Name of Work** : Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore.

**Reference** : AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014

Date of Testing : 04.07.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **8650**

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 225 | 225 | 2.6 | 97.4 | 95-100 |
| 22.4 | 2950 | 3175 | 36.7 | 63.3 | 60-80 |
| 11.2 | 1645 | 4820 | 55.7 | 44.3 | 40-60 |
| 4.75 | 925 | 5745 | 66.4 | 33.6 | 25-40 |
| 2.36 | 850 | 6595 | 76.2 | 23.8 | 15-30 |
| 0.600 | 865 | 7460 | 86.2 | 13.8 | 8-22 |
| 0.075 | 740 | 8200 | 94.8 | 5.2 | 0-8 |

Note:

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Civil-Tech Consultants & Engineers Bangalore

M/s. Civil-Tech Consultants & Engineers
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Assistant Executive Engineer,
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Job No.: CTCE/BBMP/W.No.07/KRIDL/WMM/Gradation/2014-15 04.07.2014

## GRADATION FOR WMM
## MORTH TABLE-400-11

**Client** : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

**Agency** : **Technical Manager,** KRIDL, Bangalore.

**Name of Work** : Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore.

**Reference** : AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014

Date of Testing : 04.07.2014

Material : WMM

Sample Location : WMM Mix Plant Oven Dry Wt (gm): **8920**

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 295 | 295 | 3.3 | 96.7 | 95-100 |
| 22.4 | 2980 | 3275 | 36.7 | 63.3 | 60-80 |
| 11.2 | 1755 | 5030 | 56.4 | 43.6 | 40-60 |
| 4.75 | 1285 | 6315 | 70.8 | 29.2 | 25-40 |
| 2.36 | 640 | 6955 | 78.0 | 22.0 | 15-30 |
| 0.600 | 745 | 7700 | 86.3 | 13.7 | 8-22 |
| 0.075 | 820 | 8520 | 95.5 | 4.5 | 0-8 |

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Job No.: CTCE/BBMP/W.No.07/KRIDL/WMM/Gradation/2014-15

04.07.2014

## GRADATION FOR WMM
## MORTH TABLE-400-11

**Client** : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

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**Reference** : AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014

Date of Testing : 04.07.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **9080**

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 315 | 315 | 3.5 | 96.5 | 95-100 |
| 22.4 | 2860 | 3175 | 35.0 | 65.0 | 60-80 |
| 11.2 | 1840 | 5015 | 55.2 | 44.8 | 40-60 |
| 4.75 | 1365 | 6380 | 70.3 | 29.7 | 25-40 |
| 2.36 | 745 | 7125 | 78.5 | 21.5 | 15-30 |
| 0.600 | 810 | 7935 | 87.4 | 12.6 | 8-22 |
| 0.075 | 725 | 8660 | 95.4 | 4.6 | 0-8 |

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## GRADATION FOR WMM
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**Client** : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

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**Reference** : AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014

Date of Testing : 04.07.2014

Material : WMM

Sample Location : WMM Mix Plant Oven Dry Wt (gm): **9090**

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 290 | 290 | 3.2 | 96.8 | 95-100 |
| 22.4 | 2945 | 3235 | 35.6 | 64.4 | 60-80 |
| 11.2 | 1750 | 4985 | 54.8 | 45.2 | 40-60 |
| 4.75 | 1265 | 6250 | 68.8 | 31.2 | 25-40 |
| 2.36 | 715 | 6965 | 76.6 | 23.4 | 15-30 |
| 0.600 | 835 | 7800 | 85.8 | 14.2 | 8-22 |
| 0.075 | 740 | 8540 | 93.9 | 6.1 | 0-8 |

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04.07.2014

## GRADATION FOR WMM
## MORTH TABLE-400-11

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**Reference** : AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014

Date of Testing : 04.07.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **9045**

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 320 | 320 | 3.5 | 96.5 | 95-100 |
| 22.4 | 2870 | 3190 | 35.3 | 64.7 | 60-80 |
| 11.2 | 1965 | 5155 | 57.0 | 43.0 | 40-60 |
| 4.75 | 1150 | 6305 | 69.7 | 30.3 | 25-40 |
| 2.36 | 815 | 7120 | 78.7 | 21.3 | 15-30 |
| 0.600 | 765 | 7885 | 87.2 | 12.8 | 8-22 |
| 0.075 | 690 | 8575 | 94.8 | 5.2 | 0-8 |

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## MORTH TABLE-400-11

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**Reference** : AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014

Date of Testing : 04.07.2014

Material : WMM

Sample Location : WMM Mix Plant Oven Dry Wt (gm): **9070**

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 225 | 225 | 2.5 | 97.5 | 95-100 |
| 22.4 | 2760 | 2985 | 32.9 | 67.1 | 60-80 |
| 11.2 | 1985 | 4970 | 54.8 | 45.2 | 40-60 |
| 4.75 | 1130 | 6100 | 67.3 | 32.7 | 25-40 |
| 2.36 | 925 | 7025 | 77.5 | 22.5 | 15-30 |
| 0.600 | 750 | 7775 | 85.7 | 14.3 | 8-22 |
| 0.075 | 945 | 8720 | 96.1 | 3.9 | 0-8 |

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04.07.2014

## GRADATION FOR WMM
## MORTH TABLE-400-11

**Client** : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

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**Reference** : AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014

Date of Testing : 04.07.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **9065**

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 320 | 320 | 3.5 | 96.5 | 95-100 |
| 22.4 | 2870 | 3190 | 35.2 | 64.8 | 60-80 |
| 11.2 | 1965 | 5155 | 56.9 | 43.1 | 40-60 |
| 4.75 | 1150 | 6305 | 69.6 | 30.4 | 25-40 |
| 2.36 | 815 | 7120 | 78.5 | 21.5 | 15-30 |
| 0.600 | 765 | 7885 | 87.0 | 13.0 | 8-22 |
| 0.075 | 690 | 8575 | 94.6 | 5.4 | 0-8 |

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04.07.2014

## GRADATION FOR WMM
## MORTH TABLE-400-11

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**Agency** : **Technical Manager,** KRIDL, Bangalore.

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**Reference** : AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014

Date of Testing : 04.07.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): 8845

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 270 | 270 | 3.1 | 96.9 | 95-100 |
| 22.4 | 2950 | 3220 | 36.4 | 63.6 | 60-80 |
| 11.2 | 1965 | 5185 | 58.6 | 41.4 | 40-60 |
| 4.75 | 1240 | 6425 | 72.6 | 27.4 | 25-40 |
| 2.36 | 725 | 7150 | 80.8 | 19.2 | 15-30 |
| 0.600 | 705 | 7855 | 88.8 | 11.2 | 8-22 |
| 0.075 | 630 | 8485 | 95.9 | 4.1 | 0-8 |

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## GRADATION FOR WMM
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**Reference** : AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014

Date of Testing : 04.07.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **8965**

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 290 | 290 | 3.2 | 96.8 | 95-100 |
| 22.4 | 2980 | 3270 | 36.5 | 63.5 | 60-80 |
| 11.2 | 1745 | 5015 | 55.9 | 44.1 | 40-60 |
| 4.75 | 1260 | 6275 | 70.0 | 30.0 | 25-40 |
| 2.36 | 685 | 6960 | 77.6 | 22.4 | 15-30 |
| 0.600 | 730 | 7690 | 85.8 | 14.2 | 8-22 |
| 0.075 | 815 | 8505 | 94.9 | 5.1 | 0-8 |

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**Name of Work** : Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore.

**Reference** : AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014

Date of Testing : 04.07.2014

Material : WMM

Sample Location : WMM Mix Plant Oven Dry Wt (gm): **7695**

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 225 | 225 | 2.9 | 97.1 | 95-100 |
| 22.4 | 2240 | 2465 | 32.0 | 68.0 | 60-80 |
| 11.2 | 1185 | 3650 | 47.4 | 52.6 | 40-60 |
| 4.75 | 1015 | 4665 | 60.6 | 39.4 | 25-40 |
| 2.36 | 975 | 5640 | 73.3 | 26.7 | 15-30 |
| 0.600 | 745 | 6385 | 83.0 | 17.0 | 8-22 |
| 0.075 | 820 | 7205 | 93.6 | 6.4 | 0-8 |

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Job No.: CTCE/BBMP/W.No.07/KRIDL/WMM/AIV/2014-15

05.07.2014

## Aggregate Impact Value

IS: 2386 Part IV

| | |
|---|---|
| Client | **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore. |
| Agency | **Technical Manager,** KRIDL, Bangalore. |
| Name of the Work | Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore. |
| Reference | AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014 |
| Source / Location | WMM Plant |
| Type of Mix | Wet Mix macadam |
| Date of Testing | 05.07.2014 |

| Sl No. | Details | Trial No. | | Average |
|---|---|---|---|---|
| | | 1 | 2 | |
| 1 | Total weight of aggregate sample filling the cylindrical measure = $W_1$ g | 385 | 389 | |
| 2 | Weight of agregate passing 2.36 mm sieve after the test = $W_2$ g | 84 | 86 | |
| 3 | Weight of aggregate retained 2.36 mm sieve after the test = $W_3$ g | 301 | 303 | |
| 4 | Aggregate Impact value = percent fines | 21.82 | 22.11 | |
| | 100* ($W_2/W_1$)% | | | 21.96 |

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

Note:

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Job No.: CTCE/BBMP/W.No.07/KRIDL/WMM/AIV/2014-15

05.07.2014

## Aggregate Impact Value

IS: 2386 Part IV

| | |
|---|---|
| Client | **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore. |
| Agency | **Technical Manager,** KRIDL, Bangalore. |
| Name of the Work | Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore. |
| Reference | AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014 |
| Source / Location | WMM Plant |
| Type of Mix | Wet Mix macadam |
| Date of Testing | 05.07.2014 |

| Sl No. | Details | Trial No. | | Average |
|---|---|---|---|---|
| | | 1 | 2 | |
| 1 | Total weight of aggregate sample filling the cylindrical measure = $W_1$ g | 392 | 387 | |
| 2 | Weight of agregate passing 2.36 mm sieve after the test = $W_2$ g | 86 | 85 | |
| 3 | Weight of aggregate retained 2.36 mm sieve after the test = $W_3$ g | 306 | 302 | |
| 4 | Aggregate Impact value = percent fines | 21.94 | 21.96 | |
| | 100* ($W_2/W_1$)% | | | 21.95 |

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

Note:

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**NABL** - Accredited Laboratory as per ISO / IEC-17025 : 2005


Job No.: CTCE/BBMP/W.No.07/KRIDL/WMM/AIV/2014-15

05.07.2014

## Aggregate Impact Value

IS: 2386 Part IV

| | |
|---|---|
| Client | **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore. |
| Agency | **Technical Manager,** KRIDL, Bangalore. |
| Name of the Work | Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore. |
| Reference | AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014 |
| Source / Location | WMM Plant |
| Type of Mix | Wet Mix macadam |
| Date of Testing | 05.07.2014 |

| Sl No. | Details | Trial No. | | Average |
|---|---|---|---|---|
| | | 1 | 2 | |
| 1 | Total weight of aggregate sample filling the cylindrical measure = $W_1$ g | 389 | 387 | |
| 2 | Weight of agregate passing 2.36 mm sieve after the test = $W_2$ g | 88 | 85 | |
| 3 | Weight of aggregate retained 2.36 mm sieve after the test = $W_3$ g | 301 | 302 | |
| 4 | Aggregate Impact value = percent fines | 22.62 | 21.96 | |
| | 100* ($W_2/W_1$)% | | | 22.29 |

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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05.07.2014

## Aggregate Impact Value

IS: 2386 Part IV

| | |
|---|---|
| Client | **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore. |
| Agency | **Technical Manager,** KRIDL, Bangalore. |
| Name of the Work | Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore. |
| Reference | AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014 |
| Source / Location | WMM Plant |
| Type of Mix | Wet Mix macadam |
| Date of Testing | 05.07.2014 |

| Sl No. | Details | Trial No. | | Average |
|---|---|---|---|---|
| | | 1 | 2 | |
| 1 | Total weight of aggregate sample filling the cylindrical measure = $W_1$ g | 389 | 386 | |
| 2 | Weight of agregate passing 2.36 mm sieve after the test = $W_2$ g | 84 | 82 | |
| 3 | Weight of aggregate retained 2.36 mm sieve after the test = $W_3$ g | 305 | 304 | |
| 4 | Aggregate Impact value = percent fines | 21.59 | 21.24 | |
| | 100* ($W_2/W_1$)% | | | 21.42 |

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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05.07.2014

## Aggregate Impact Value

IS: 2386 Part IV

| | |
|---|---|
| Client | **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore. |
| Agency | **Technical Manager,** KRIDL, Bangalore. |
| Name of the Work | Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore. |
| Reference | AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014 |
| Source / Location | WMM Plant |
| Type of Mix | Wet Mix macadam |
| Date of Testing | 05.07.2014 |

| Sl No. | Details | Trial No. | | Average |
|---|---|---|---|---|
| | | 1 | 2 | |
| 1 | Total weight of aggregate sample filling the cylindrical measure = $W_1$ g | 390 | 389 | |
| 2 | Weight of agregate passing 2.36 mm sieve after the test = $W_2$ g | 88 | 87 | |
| 3 | Weight of aggregate retained 2.36 mm sieve after the test = $W_3$ g | 302 | 302 | |
| 4 | Aggregate Impact value = percent fines | 22.56 | 22.37 | |
| | 100* ($W_2/W_1$)% | | | 22.46 |

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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Job No.: CTCE/BBMP/W.No.07/KRIDL/WMM/S-T/2014-15 05.07.2014

## DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

| | |
|---|---|
| Client | **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore. |
| Agency | **Technical Manager,** KRIDL, Bangalore. |
| Name of Work | Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore. |
| Reference | AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014 |
| Technical Reference | IS 2386(Part 1) 1963 (RA 2011) |
| Type of Mix | Wet Mix Macadam |
| Date of Testing | 05.07.2014 |

Civil-Tech Consultants & Engineers Bangalore

Result : Flakiness Index = **12.56%**

Elongation Index = **13.84%**

**Result : Combined Flakiness & Elongation index** 26.40%

**Comments:**

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

**Note:**

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Job No.: CTCE/BBMP/W.No.07/KRIDL/WMM/S-T/2014-15 05.07.2014

## DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

| | |
|---|---|
| Client | **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore. |
| Agency | **Technical Manager,** KRIDL, Bangalore. |
| Name of Work | Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore. |
| Reference | AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014 |
| Technical Reference | IS 2386(Part 1) 1963 (RA 2011) |
| Type of Mix | Wet Mix Macadam |
| Date of Testing | 05.07.2014 |

Civil-Tech Consultants & Engineers Bangalore

Result : Flakiness Index = **12.84%**

Elongation Index = **13.26%**

**Result : Combined Flakiness & Elongation index** 26.10%

**Comments:**

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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## DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

| | |
|---|---|
| Client | **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore. |
| Agency | **Technical Manager,** KRIDL, Bangalore. |
| Name of Work | Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore. |
| Reference | AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014 |
| Technical Reference | IS 2386(Part 1) 1963 (RA 2011) |
| Type of Mix | Wet Mix Macadam |
| Date of Testing | 05.07.2014 |

Civil-Tech Consultants & Engineers Bangalore

Result : Flakiness Index = **11.87%**

Elongation Index = **13.63%**

**Result : Combined Flakiness & Elongation index** **25.50%**

**Comments:**

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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## DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

| | |
|---|---|
| Client | **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore. |
| Agency | **Technical Manager,** KRIDL, Bangalore. |
| Name of Work | Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore. |
| Reference | AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014 |
| Technical Reference | IS 2386(Part 1) 1963 (RA 2011) |
| Type of Mix | Wet Mix Macadam |
| Date of Testing | 05.07.2014 |

Result : Flakiness Index = **11.69%**

Elongation Index = **13.85%**

**Result : Combined Flakiness & Elongation index** 25.54%

**Comments:**

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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## DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

| | |
|---|---|
| Client | **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore. |
| Agency | **Technical Manager,** KRIDL, Bangalore. |
| Name of Work | Improvements of Roads (UGD Laying Roads) and Drains in Chinnappa Layout, Mariyannapalya in Ward No.07, Byatarayanapura, BBMP, Bangalore. |
| Reference | AEE/(KOD.SUB.DIV)/ /2014-15 Dated: 03.06.2014 |
| Technical Reference | IS 2386(Part 1) 1963 (RA 2011) |
| Type of Mix | Wet Mix Macadam |
| Date of Testing | 05.07.2014 |

Result : Flakiness Index = **12.52%**

Elongation Index = **13.77%**

**Result : Combined Flakiness & Elongation index** 26.29%

**Comments:**

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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